Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2010-03-17
Date of Last Change to Activities: 2012-08-23
Investment Auto Submission Date: 2012-02-27
Date of Last Investment Detail Update: 2012-02-27
Date of Last Exhibit 300A Update: 2012-08-23
Date of Last Revision: 2012-08-23

Agency: 021 - Department of Transportation **Bureau:** 12 - Federal Aviation Administration

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: FAAXX732: NextGen Network Enabled Weather (NNEW)

2. Unique Investment Identifier (UII): 021-006081945

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

Weather information is presently provided in many different and specialized formats which limits its reuse by multiple systems. The Next Generation Network Enabled Weather (NNEW) program will provide standardized weather data access for integration into decision-support systems. NNEW Initial Operational Capability (IOC) will consist of portfolio elements from both NNEW and NextGen Reduced Weather Impact (RWI) forecast. NNEW will provide a cost-effective weather ingest and dissemination system that enables interoperability with NextGen partners and allows dynamic propagation of scaleable areas (e.g., geographic area, route, specific location) of weather information. This will provide for: higher resolution models that feed weather systems; location-based weather forecast including weather to cockpit, dynamic dissemination of scaleable areas, and route specific weather. NNEW capabilities will deliver cost-effective universal access to a single source of weather information through standardization of weather services (independent of system or platform), implement open system data standards to enable weather interoperability with NextGen partner agencies, provide the ability for the user to obtain weather information based on operational specific parameters (i.e., extraction/filter capability), reduce bandwidth constraints, and provide adaptors to ensure that legacy systems are not required to change their system interfaces. NNEW will provide the needed improvements to partially fulfill the performance gaps by rolling out the program through a series of segments consisting of multiple capabilities that impact

the mission of the National Airspace System (NAS). Weather impacts delays and safety in NAS operations. This program has dependencies with the Aeronautical Information Management (AIM), Weather and Radar Processor (WARP), FAA Telecommunications Infrastructure (FTI), En Route Automation Modernization (ERAM), ERAM DPosition and Enhancements, Advanced Technologies and Oceanic Procedures (ATOP), Traffic Management Advisor (TMA), System Wide Information Management (SWIM), Collaborative Air Traffic Management Technologies (CATMT), Traffic Flow Management (TFM), and Terminal Automation Modernization and Replacement (TAMR-3) programs.

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

Delays in the NAS are primarily attributable to weather (wx.). During the last five-year period, over 70% of delays of 15 minutes or more, on average, were caused by wx., based on Aviation System Performance Metrics and Operations Network data. Weather also impacts safety. Between 1994 and 2003, wx. was determined to be a contributing or casual factor in over 20% of all accidents. NNEW supports the Department of Transportation's (DOTs) Strategic Plan (2011-2016) and the FAA's Destination 2025 Plan. Specifically supported is the FAA/DOT Measurement of Safety. The DOT "Outcome" of this is a reduction in transportation-related fatalities and injuries. This is associated with the FAA's Goal Area titled: "Next level of Safety". The "Outcome" is to strive to eliminate fatalities on commercial service aircraft in the United States, with specific focus centered on "Commercial Air Carrier Fatality Rate", where a reduction of commercial air carrier fatalities per 100 million persons on board by 24% over a nine (9)-year period (2010-2018), with no more than 6.2 in 2018. This is specific to both aforementioned plans. An "FAA Outcome" also associated with the FAA Goal Area titled: "Next Level of Safety" is to "reduce aviation risk through all phases of flight (gate-to-gate)." The "FAA Destination 2025" Plan goals include: "implement 40 percent of mitigating strategies for the top five (5) airport risk areas", "Maintain the rate of serious runway incursions at or below 20 per 1000 events" and "Ensure no cyber security event significantly degrades or disables a mission-critical FAA system." Another FAA "Outcome" is to: "Reduce the general aviation fatal accident rate." This is supported by both, the DOT's Strategic Plan (2011-2016) and the FAA's Destination 2025 Plan. The goal is to "Reduce general aviation fatality rate to less than 1 fatality per 100,000 flight hours by 2018." The DOT's Plan also includes the following goals: "Reduce the total number of runway incursions 10 percent from the FY2008 baseline of 1009 to 909 by the end of FY2013." This is a high priority goal. Also included is: "Reduce the number of hazardous materials transportation incidents-involving death or major injury." NNEW is a NextGen transformational program. Lack of funding will impede a key contribution to the interagency NextGen effort to provide efficient and cost-effective access to weather information.

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

The NNEW Program was in the middle of the Federal Aviation Administration's (FAA's) Investment Analysis (IA) Phase and is working on the artifact documentation (i.e., initial Program Requirements document [iPR], Business Case Analysis Report [BCAR]) as the program moved towards an Initial Investment Decision (IID). The NNEW Team conducted

alternative analysis activities and continued development of Standards and Reference Implementations (RIs), specifically, Weather-Specific Services Format Standards, version 4.0. and Weather Product Data Format Standards, version 4.0. Also conducted during this period was the NNEW 4-D Wx Cube and multi-agency Capability Evaluations.

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

The NNEW Program will complete the development and/or update of all required JRC artifact documentation, complete the initial analysis phase and conduct an Initial Investment Decision (IID) in the Current Year (CY). In the Budget Year (BY), the NNEW program will continue to develop the standards necessary to support universal user/system access to needed weather information. It will enable the seamless access to standard weather data sets by all NextGen users published by NNEW and the 4-D Wx Data Cube. Taken together NNEW and the 4D Wx Data Cube will be a shared, 4-dimensional (three spatial dimensions and time) virtual database consisting of extensive sets of weather information, including data that will be designated to be the Single Authoritative Source (SAS) for weather information used in the NAS. It will provide consistent, tactical and strategic-level weather information that will be accessible by all NAS stakeholders. The databases forming the NNEW/4-D Wx Data Cube system will be distributed among multiple, physical locations and suppliers that are connected and accessible by communication networks supported by World Wide Web concepts and technology. NNEW is responsible for establishing the information management capabilities necessary for the operations of NNEW and the 4-D Wx Data Cube. There will be demonstration efforts to resolve key technical questions and reduce implementation risk of a network-enabled weather environment to the FAA and external system users. This will include assurance that NNEW is fully compatible and consistent with the evolved System-Wide Information Management (SWIM) infrastructure. This will also serve to define open standards and requirements necessary for overall NextGen weather dissemination compatibility.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

2010-12-16

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$47.0	$18.0	$0.0	$0.0
DME (Excluding Planning) Costs:	$0.0	$0.0	$0.0	$23.8
DME (Including Planning) Govt. FTEs:	$3.8	$1.4	$1.5	$1.6
Sub-Total DME (Including Govt. FTE):	$50.8	$19.4	$1.5	$25.4
O & M Costs:	$0.0	$0.0	$0.0	$0.0
O & M Govt. FTEs:	$0.0	$0.0	$0.0	$0.0
Sub-Total O & M Costs (Including Govt. FTE):	0	0	0	0
Total Cost (Including Govt. FTE):	$50.8	$19.4	$1.5	$25.4
Total Govt. FTE costs:	$3.8	$1.4	$1.5	$1.6
# of FTE rep by costs:	23	8	8	8
Total change from prior year final President's Budget ($)		$0.0	$-27.1	
Total change from prior year final President's Budget (%)		0.00%	-94.75%	

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

There were no changes to the NNEW funding profile from the FY 2012 President's Budget request for the FY2011 (PY). For FY2012 (CY), NNEW Facilities and Equipment (F&E) funding was zeroed out as a result of the FY2012 Appropriation/FY2013 Office of Management and Budget (OMB) Passback.

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded	6920	DTFAWA07F00076									
Awarded	6920	DTFAWA11X80007									
Awarded	6920	DTFAWA10X80013									
Awarded	6920	DTFAWA09X80005									
Awarded	6920	DTFAWA10C00080									
Awarded	6920	DTFAWA10C00079									
Awarded	6920	DTFAWA08X80008									
Awarded	6920	DTFAWA10D00016									
Awarded	6920	DTFAWA10A80034									
Awarded	6920	DTFACT09D00021									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:
NNEW is in the planning phase of the project life cycle and is therefore not required to implement earned value management at this time. NNEW will implement program level EVM after the program is baselined at (FID) consistent with FAA's Acquisition Management System policy.

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2012-08-23

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
1	Initial and Final Investment Decision	Completion of Investment Analysis, Processes to obtain Final Investment Decision.			

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
1	Initial and Final Investment Decision							

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
1	Initial Investment Decision (IID) Program Planning, Analysis, and Documentation - Part 1	Includes activities associated with forming an investment analysis team, developing an investment analysis plan, and coordinating	2012-03-30	2012-03-30	2012-03-28	212	2	0.94%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		the planned activities. This includes the technical, operational, lifecycle cost, benefits, risk, and return on investment analysis of the alternatives. It also includes activities such as initial acquisition program baseline (APB) and business case development for the preferred alternative and coordination of the analysis and findings with the sponsor, Joint Resource Council (JRC) members, and stakeholder organizations.						
1	Risk Mitigation - Segment 2	Systems Engineering and Design – Conduct design analysis for an integrated, iterative systems engineering program. Software Engineering affected by work under this effort includes applicable Object Oriented design information. This analysis is a Pre FID activity	2012-09-30	2012-09-30		259	0	0.00%
1	Initial Investment Decision (IID) Program Planning, Analysis, and Documentation - Part 2	Includes activities associated with forming an investment analysis team, developing an investment analysis plan, and coordinating	2012-09-30	2012-09-30		181	0	0.00%

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		the planned activities. This includes the technical, operational, lifecycle cost, benefits, risk, and return on investment analysis of the alternatives. It also includes activities such as initial acquisition program baseline (APB) and business case development for the preferred alternative and coordination of the analysis and findings with the sponsor, Joint Resource Council (JRC) members, and stakeholder organizations.						

Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
NONE								